

AMENDMENTS TO THE CLAIMS

Please cancel claims 13-15, 33-35, and 53-55 and amend claims 1-6, 8, 10-12, 16, 21-26, 28, 30-32, 36, 41-46, 48, 50-52, and 56 as follows:

1. (Currently Amended) A computer-implemented method for virtualizing super-user privileges in a computer operating system including multiple ~~virtual processes~~ virtual private servers, the method comprising:

~~designating a virtual super user, the virtual super user being associated with a virtual process, wherein the virtual process is a plurality of actual processes;~~

associating a user with a virtual private server, the virtual private server comprising a plurality of actual processes;

designating the user as a virtual super-user;

intercepting a system call, made by the user, for which actual super-user privileges are required; and

in response to the intercepted system call ~~being made by the virtual super user and~~ pertaining to the ~~virtual process of the virtual super user~~ virtual private server associated with the user:

granting actual super-user privileges to the ~~virtual super user~~ user; and

allowing execution of the system call.

2. (Currently Amended) The method of claim 1, further comprising:

withdrawing the actual super-user privileges from the ~~virtual super user~~ user after execution of the system call.

3. (Currently Amended) The method of claim 1, wherein designating comprises:
assigning a virtual super-user identifier to the ~~virtual super-user~~ user.

4. (Currently Amended) The method of claim 3, wherein the virtual super-user
identifier comprises a super-user identifier and an indication of the ~~virtual process~~ virtual private
server.

5. (Currently Amended) The method of claim 1, wherein designating comprises:
assigning a user identifier to the ~~virtual super-user~~ user; and
storing the user identifier and an indication of the ~~virtual process~~ virtual private server of
the ~~virtual super-user~~ user in a virtual super-user list.

6. (Currently Amended) The method of claim 1, wherein granting comprises:
assigning a super-user identifier to the ~~virtual super-user~~ user.

7. (Original) The method of claim 1, wherein the intercepted system call comprises a
system call for accessing a file.

8. (Currently Amended) The method of claim 7, wherein the intercepted system call
pertains to the ~~virtual process of the virtual super-user~~ virtual private server associated with the
user when the file to be accessed is associated with the ~~virtual process~~ virtual private server.

9. (Original) The method of claim 1, wherein the intercepted system call comprises a system call for terminating a process.

10. (Currently Amended) The method of claim 9, wherein the intercepted system call pertains to the ~~virtual process of the virtual super-user~~ virtual private server associated with the user when the process to be terminated is associated with the ~~virtual process~~ virtual private server.

11. (Currently Amended) The method of claim 1, wherein the intercepted system call comprises a system call for terminating all processes associated with the ~~virtual process~~ virtual private server, the method further comprising:

identifying each process associated with the ~~virtual process~~ virtual private server; and
terminating each identified process.

12. (Currently Amended) The method of claim 11, wherein a data structure stores associations between processes and ~~virtual processes~~ virtual private servers, and wherein identifying comprises:

identifying each process by its association with the ~~virtual process~~ virtual private server in
the data structure.

13.-15. (Cancelled)

16. (Currently Amended) The method of claim 1, further comprising:

responsive to the intercepted system call ~~being made by the virtual super user and not~~
~~pertaining to the virtual process of the virtual super user~~ virtual private server
associated with the user, disallowing execution of the system call.

17. (Original) The method of claim 1, further comprising:

responsive to the intercepted system call comprising a system call for inserting a module
into an operating system kernel, disallowing execution of the system call.

18. (Original) The method of claim 1, wherein allowing comprises:

executing the system call.

19. (Previously Presented) The method of claim 1, wherein intercepting the system call
comprises:

loading a system call wrapper;

saving a pointer to the system call; and

replacing the pointer to the system call with a pointer to the system call wrapper, such
that the system call wrapper is executed when the system call is invoked.

20. (Original) The method of claim 19, wherein the pointer to the first system call
comprises a system call vector.

21. (Currently Amended) A computer program product for virtualizing super-user privileges in a computer operating system including ~~multiple virtual processes~~ virtual private servers, the computer program product comprising:

~~program code for designating a virtual super-user, the virtual super-user being associated with a virtual process, wherein the virtual process is a plurality of actual processes;~~

program code for associating a user with a virtual private server, the virtual private server comprising a plurality of actual processes;

program code for designating the user as a virtual super-user;

program code for intercepting a system call, made by the user, for which actual super-user privileges are required; and

program code for determining that the intercepted system call ~~was made by the virtual super-user and~~ pertains to the virtual process of the virtual super-user; virtual private server associated with the user, granting actual super-user privileges to the ~~virtual super-user, user~~, and allowing execution of the system call.

22. (Currently Amended) The computer program product of claim 21, further comprising:

program code for withdrawing the actual super-user privileges from the ~~virtual super-user~~ user after execution of the system call.

23. (Currently Amended) The computer program product of claim 21, wherein program code for designating comprises:

program code for assigning a virtual super-user identifier to the ~~virtual super-user~~ user.

24. (Currently Amended) The computer program product of claim 23, wherein the virtual super-user identifier comprises a super-user identifier and an indication of the ~~virtual process~~ virtual private server.

25. (Currently Amended) The computer program product of claim 21, wherein program code for designating comprises:

program code for assigning a user identifier to the ~~virtual super-user~~ user; and
program code for storing the user identifier and an indication of the ~~virtual process~~ virtual private server of the ~~virtual super-user~~ user in a virtual super-user list.

26. (Currently Amended) The computer program product of claim 21, wherein program code for granting comprises:

program code for assigning a super-user identifier to the ~~virtual super-user~~ user.

27. (Original) The computer program product of claim 21, wherein the intercepted system call comprises a system call for accessing a file.

28. (Currently Amended) The computer program product of claim 27, wherein the intercepted system call pertains to the ~~virtual process of the virtual super-user~~ virtual private server associated with the user when the file to be accessed is associated with the ~~virtual process~~ virtual private server.

29. (Original) The computer program product of claim 21, wherein the intercepted system call comprises a system call for terminating a process.

30. (Currently Amended) The computer program product of claim 29, wherein the intercepted system call pertains to the ~~virtual process of the virtual super-user~~ virtual private server associated with the user when the process to be terminated is associated with the ~~virtual process~~ virtual private server.

31. (Currently Amended) The computer program product of claim 21, wherein the intercepted system call comprises a system call for terminating all processes associated with the ~~virtual process~~ virtual private server, the computer program product further comprising:
program code for identifying each process associated with the ~~virtual process~~ virtual private server; and
program code for terminating each identified process.

32. (Currently Amended) The computer program product of claim 31, wherein an association data structure stores associations between processes and ~~virtual processes~~ virtual private servers, and wherein program code for identifying comprises:
program code for identifying each process by its association with the ~~virtual process~~ virtual private server in the association data structure.

33.-35. (Cancelled)

36. (Currently Amended) The computer program product of claim 21, further comprising:

program code for disallowing execution of the system call in response to the intercepted system call ~~being made by the virtual super-user and not pertaining to the virtual process of the virtual super-user~~ virtual private server associated with the user.

37. (Original) The computer program product of claim 21, further comprising:

program code for disallowing execution of the system call in response to the intercepted system call comprising a system call for inserting a module into an operating system kernel.

38. (Original) The computer program product of claim 21, wherein program code for allowing comprises:

program code for executing the system call.

39. (Previously Presented) The computer program product of claim 21, wherein program code for intercepting the system call comprises:

program code for loading a system call wrapper;

program code for saving a pointer to the system call; and

program code for replacing the pointer to the system call with a pointer to the system call wrapper, such that the system call wrapper is executed when the system call is invoked.

40. (Previously Presented) The computer program product of claim 39, wherein the pointer to the first system call comprises a system call vector.

41. (Currently Amended) A system for virtualizing super-user privileges in a computer operating system including ~~multiple virtual processes~~ virtual private servers, the system comprising:

~~a virtual super-user designation module for designating a virtual super user, the virtual super-user being associated with a virtual process, wherein the virtual process is a plurality of actual processes; and~~

a virtual super-user designation module for associating a user with a virtual private server, the virtual private server comprising a plurality of actual processes, and for designating the user as a virtual super-user;

a system call wrapper for intercepting a system call, made by the user, for which actual super-user privileges are required and, in response to the intercepted system call ~~being made by the virtual super user and pertaining to the virtual process of the virtual super user~~ virtual private server associated with the user, granting actual super-user privileges to the ~~virtual super-user~~ user and allowing execution of the system call.

42. (Currently Amended) The system of claim 41, wherein the system call wrapper is further configured to withdraw the actual super-user privileges from the ~~virtual super-user~~ user after execution of the system call.

43. (Currently Amended) The system of claim 41, wherein the virtual super-user designation module is further configured to assign a virtual super-user identifier to the ~~virtual super-user~~ user.

44. (Currently Amended) The system of claim 43, wherein the virtual super-user identifier comprises a super-user identifier and an indication of the virtual process virtual private server.

45. (Currently Amended) The system of claim 41, wherein the virtual super-user designation module is further configured to assign a user identifier to the ~~virtual super-user~~ user and store the user identifier and an indication of the ~~virtual process of the virtual super-user~~ virtual private server associated with the user in a virtual super-user list.

46. (Currently Amended) The system of claim 41, wherein the system call wrapper is further configured to assign a super-user identifier to the ~~virtual super-user~~ user.

47. (Original) The system of claim 41, wherein the intercepted system call comprises a system call for accessing a file.

48. (Currently Amended) The system of claim 47, wherein the intercepted system call pertains to the ~~virtual process of the virtual super-user~~ virtual private server associated with the user when the file to be accessed is associated with the ~~virtual process~~ virtual private server.

49. (Original) The system of claim 41, wherein the intercepted system call comprises a system call for terminating a process.

50. (Currently Amended) The system of claim 49, wherein the intercepted system call pertains to the ~~virtual process of the virtual super-user~~ virtual private server associated with the user when the process to be terminated is associated with the ~~virtual process~~ virtual private server.

51. (Currently Amended) The system of claim 41, wherein the intercepted system call comprises a system call for terminating all processes associated with the ~~virtual process~~ virtual private server, and wherein the system call wrapper is further configured to identify each process associated with the ~~virtual process~~ virtual private server and terminate each identified process.

52. (Currently Amended) The system of claim 51, further comprising:
an association data structure for storing associations between processes and ~~virtual processes~~ virtual private servers, wherein the system call wrapper is further configured to identify each process by its association with the ~~virtual process~~ virtual private server in the association data structure.

53.-55. (Cancelled)

56. (Currently Amended) The system of claim 41, wherein the system call wrapper is further configured to disallow execution of the intercepted system call in response to the intercepted system call ~~being made by the virtual super user and~~ not pertaining to the ~~virtual process of the virtual super user~~ virtual private server associated with the user.

57. (Original) The system of claim 41, wherein the system call wrapper is further configured to disallow execution of the intercepted system call in response to the intercepted system call comprising a system call for inserting a module into an operating system kernel.

58. (Original) The system of claim 41, wherein the system call wrapper is further configured to execute the system call.